



## WHAT IS LASER CLADDING?

Lasercladding is a new type of surface treatment. Using a high-power laser, a thin layer of the base surface is melted. At the same time, material powder is fed into the laser. This material powder melts and bonds with the base material resulting in a metallurgical bonding of these two materials.

Technocladding Europe uses the EHLA laserclad machine. **EHLA** stands for **Extreme, Highspeed, Lasercladding**, Application and is one of the newest surface techniques on the market. Compared to conventional laserclad machines, EHLA is much faster and more accurate.

- » min. Ø50
- » max. Ø1000
- » max. 25.000 kg
- » max. 15.000 mm



## INDUSTRIES

Due to the wear and corrosion resistant properties of laserclad layers, it is already widely used as a coating for various applications and industries. Here are some examples.



**Mining and earthmoving**



**Oil and gas**



**Paper industry**



**Steel and manufacturing**



**Offshore**



**Agriculture**

**Do you have questions or are you curious about lasercladding options? Then feel free to contact us.**

## BENEFITS OF LASER CLADDING:

### High processing speed

Because EHLA is fully computer-controlled, it increases laser throughput from 0.5 to 2 meters per minute to 50 to 500 meters per minute, coating a part 100 to 250 times faster than before.

### Low heat input

A major advantage of laser cladding is the minimal heat input. This results in low mixing with the base material and little to no distortion. This makes the finishing of our laserclad layer easier and can we guarantee quality.

### Corrosion resistance

Lasercladding, unlike many other surface treatments, is corrosion resistant. This is because the microstructure of the deposited material powder is extremely dense, crack-free and non-porous. The rapid solidification of carbide-containing layers also significantly increases wear resistance.

### Metallurgical connection

The EHLA laser melts a thin layer of the base surface. At the same time, in the laser, the material powder is already melted and applied to the base surface. The molten material powder bonds with the base material, creating a metallurgical bond of these two materials.

### Accurate layer thickness

The EHLA laser is 1.5 mm wide and is fully computer-controlled. The combination of the minimum laser width and advanced system features allows us to determine the layer thickness to a few thousandths. This allows us to ensure the desired layer thickness.

### Sustainable

Because the material powder is already melted in the laser itself, we use much less material powder than other laserclad machines. We use as much as 90% of our material powder, allowing us to clad both sustainably and environmentally.

### New and repair work

We can perform both new and repair work for you without having to replace the laser or material powder. This saves a lot of time and makes the laserclad process more efficient.

### Wide variety of coatings

We work with a wide variety of material powders. Each powder has its own properties suitable for each application. The machine is set up so that it does not take extra time to switch between material powders. This allows us to guarantee a short lead time.